Docket No.: R2180.0178/P178

ABSTRACT

[00130] An apparatus and a method for manufacturing semiconductor devices is disclosed for selectively disconnecting a fuse element out of plural fuse elements formed on a semiconductor wafer substrate which is provided with the plural fuse elements and a dielectric layer having at least one opening corresponding to the location for the plural fuse elements. The method includes processing steps implemented onto the wafer substrate, such as (a) forming a layer of etching barrier resin by scanning at least one discharging nozzle for discharging the raw etching barrier resin while suitably discharging droplets of raw etching barrier resin to replenish the opening corresponding to the location of the fuse element not to be disconnected, (b) hardening the raw etching barrier resin to be a layer of etching barrier resin, and (c) the fuse element in the prescribed disconnecting area without overlying portion of the etching barrier resin layer is selectively disconnected by etching using the dielectric layer and the etching barrier resin as a mask.